

## Storm Data and Unusual Weather Phenomena - November 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>ILLINOIS, South</b>				
(IL-Z075) JEFFERSON, (IL-Z076) WAYNE, (IL-Z077) EDWARDS, (IL-Z078) WABASH, (IL-Z080) PERRY, (IL-Z081) FRANKLIN, (IL-Z082) HAMILTON, (IL-Z083) WHITE, (IL-Z084) JACKSON, (IL-Z085) WILLIAMSON, (IL-Z086) SALINE, (IL-Z087) GALLATIN, (IL-Z088) UNION, (IL-Z089) JOHNSON, (IL-Z090) POPE, (IL-Z091) HARDIN, (IL-Z092) ALEXANDER, (IL-Z093) PULASKI, (IL-Z094) MASSAC	11/01/10 00:00 CST	0		Drought
	11/25/10 00:00 CST	0		

Moderate to severe drought conditions persisted over southern Illinois until widespread heavy rainfall on the 24th and 25th. The severe drought was confined to far southeast counties, primarily the Wabash River Valley. Topsoil moisture in southeastern counties was rated short or very short. Wildfire danger became very high as live forest fuels became dormant due to frost and freezing temperatures. Many watering holes and ponds dried up, and lake levels were very low. Water levels on Rend Lake were low enough to cause a hazard to boaters. Crop harvests were completed in October, but final crop damage figures were not yet available.



*Photo of dried up pond in central Massac County, Illinois on November 11. Courtesy of Beau Dodson.*

(IL-Z084) JACKSON	11/08/10 14:00 CST	75K	Wildfire
	11/10/10 05:00 CST	0	

A large brush fire consumed 409 acres on the western edge of the Shawnee National Forest, in the southwest corner of Jackson County near the Big Muddy River. Conditions were ripe for such a fire due to the summer and fall drought. Very low relative humidity on consecutive afternoons dried fine fuels such as leaves and grass. Green vegetation that normally slows the rate of fire spread in the summer was dormant due to killing frosts in October. Numerous dead and downed trees and limbs from the May 8, 2009 derecho (convective windstorm) fed the fire. Steep, sloping terrain made the fire difficult to fight. The fire was estimated to be the largest in at least 20 years in the Shawnee National Forest. The fire occurred in a remote area and was no immediate threat to any structures. Smoke from the fire impacted the Carbondale area for several hours.

(IL-Z075) JEFFERSON, (IL-Z076) WAYNE, (IL-Z077) EDWARDS, (IL-Z078) WABASH, (IL-Z080) PERRY, (IL-Z081) FRANKLIN, (IL-Z082) HAMILTON, (IL-Z083) WHITE, (IL-Z084) JACKSON, (IL-Z085) WILLIAMSON, (IL-Z086) SALINE, (IL-Z087) GALLATIN, (IL-Z088) UNION, (IL-Z089) JOHNSON,			
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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>(IL-Z090) POPE, (IL-Z091) HARDIN, (IL-Z092) ALEXANDER, (IL-Z093) PULASKI, (IL-Z094) MASSAC</b>				
	11/17/10 03:00 CST		0	Dense Fog
	11/17/10 09:00 CST		0	
Widespread dense fog developed over southern Illinois in association with clear skies and very moist southwest winds over cold ground. Visibility was less than one quarter mile on a widespread basis.				
<b>(IL-Z075) JEFFERSON, (IL-Z076) WAYNE, (IL-Z077) EDWARDS, (IL-Z078) WABASH, (IL-Z081) FRANKLIN, (IL-Z082) HAMILTON, (IL-Z083) WHITE, (IL-Z085) WILLIAMSON, (IL-Z086) SALINE, (IL-Z087) GALLATIN, (IL-Z088) UNION, (IL-Z089) JOHNSON, (IL-Z090) POPE, (IL-Z091) HARDIN, (IL-Z092) ALEXANDER, (IL-Z093) PULASKI, (IL-Z094) MASSAC</b>				
	11/20/10 01:00 CST		0	Dense Fog
	11/20/10 09:00 CST		0	
Clear skies and light winds enabled the residual moisture from recent rainfall to develop into dense fog. Visibility was below one quarter mile on a widespread basis along and east of Interstate 57. This included all of southern Illinois except the Carbondale and Pinckneyville areas.				
<b>EDWARDS COUNTY --- 6.2 SE ELLERY [38.28, -88.08], 4.8 NW WEST SALEM MUNI ARPT [38.58, -88.09]</b>				
	11/25/10 14:00 CST		0	Heavy Rain
	11/25/10 16:00 CST		0	Source: Law Enforcement
Water was reported over several rural back roads across the county.				
<b>WHITE COUNTY --- 2.1 WSW EPWORTH [38.06, -88.14], 2.3 SE SUMPTER [38.12, -88.19]</b>				
	11/25/10 14:00 CST		0	Heavy Rain
	11/25/10 16:00 CST		0	Source: Law Enforcement
Water was over several rural back roads around the county.				
Several hours of moderate to heavy rain occurred ahead of a strong cold front as it swept east across Missouri. Storm total rainfall was generally between 2.5 and 3.5 inches.				
<b>INDIANA, Southwest</b>				
<b>(IN-Z081) GIBSON, (IN-Z082) PIKE, (IN-Z085) POSEY, (IN-Z086) VANDERBURGH, (IN-Z087) WARRICK, (IN-Z088) SPENCER</b>				
	11/01/10 00:00 CST		0	Drought
	11/25/10 00:00 CST		0	
Severe to extreme drought conditions persisted over southwest Indiana until widespread heavy rainfall occurred on the 24th and 25th. The extreme drought spread as far west as Warrick and Spencer Counties before the heavy rain. A ban on outdoor burning remained in effect across all of southwest Indiana until heavy rain occurred. Crop harvests were completed in October, but final crop damage figures were not yet available.				
<b>(IN-Z081) GIBSON, (IN-Z082) PIKE, (IN-Z085) POSEY, (IN-Z086) VANDERBURGH, (IN-Z087) WARRICK</b>				
	11/17/10 05:00 CST		0	Dense Fog
	11/17/10 09:00 CST		0	
Widespread dense fog developed over southwest Indiana in association with clear skies and very moist southwest winds over cold ground. Visibility was less than one quarter mile on a widespread basis.				
<b>(IN-Z081) GIBSON, (IN-Z082) PIKE, (IN-Z085) POSEY, (IN-Z086) VANDERBURGH, (IN-Z087) WARRICK, (IN-Z088) SPENCER</b>				
	11/20/10 01:00 CST		0	Dense Fog
	11/20/10 09:00 CST		0	
Clear skies and light winds enabled the residual moisture from recent rainfall to develop into dense fog. Visibility was below one quarter mile on a widespread basis.				
<b>PIKE COUNTY --- 1.1 SSW PIKEVILLE [38.31, -87.13]</b>				
	11/25/10 12:00 EST		0	Heavy Rain
	11/25/10 14:20 EST		0	Source: CoCoRaHS

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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Heavy rain was reported for several hours. Ditches and creeks ran out of their banks.

VANDERBURGH COUNTY --- 3.1 S EVANSVILLE [37.94, -87.56], 4.3 S SMYTHE [37.94, -87.48], 0.5 WSW SMYTHE [38.00, -87.49], 0.4 SW EVANSVILLE SKYLN ARP [38.02, -87.59], 1.2 WSW HARWOOD [37.99, -87.60]

11/25/10 12:45 CST	0	Flood (due to Heavy Rain)
11/25/10 14:45 CST	0	Source: Law Enforcement

Water was over roads in numerous places in Evansville. The intersection of Indiana 66 and First Avenue was closed due to flooding. On the southeast side of Evansville, a spotter reported 4.6 inches of rain in 36 hours.

GIBSON COUNTY --- FRANCISCO [38.33, -87.45], SOMERVILLE [38.28, -87.37], 1.5 NNE HAUBSTADT [38.22, -87.56], 3.2 NNE OWENSVILLE [38.31, -87.66]

11/25/10 14:00 CST	0	Flood (due to Heavy Rain)
11/25/10 16:15 CST	0	Source: Law Enforcement

Between three and four feet of water covered County Road 725 near Francisco. Water was streaming over County Road 450 near Somerville. Water was over several other roads in Gibson County. A trained spotter measured a storm total rainfall of 4.80 inches near Fort Branch.

Several hours of moderate to heavy rain occurred ahead of a strong cold front as it swept east across Illinois. Storm total rainfall was generally between 3 and 5 inches.

### KENTUCKY, Southwest

(KY-Z001) FULTON, (KY-Z002) HICKMAN, (KY-Z003) CARLISLE, (KY-Z004) BALLARD, (KY-Z005) MCCRACKEN, (KY-Z006) GRAVES, (KY-Z007) LIVINGSTON, (KY-Z008) MARSHALL, (KY-Z009) CALLOWAY, (KY-Z010) CRITTENDEN, (KY-Z011) LYON, (KY-Z012) TRIGG, (KY-Z013) CALDWELL, (KY-Z014) UNION, (KY-Z015) WEBSTER, (KY-Z016) HOPKINS, (KY-Z017) CHRISTIAN, (KY-Z018) HENDERSON, (KY-Z019) DAVIESS, (KY-Z020) MCLEAN, (KY-Z021) MUHLENBERG, (KY-Z022) TODD

11/01/10 00:00 CST	0	Drought
11/30/10 23:59 CST	0	

Severe drought continued across much of western Kentucky during the month of November. Widespread heavy rainfall on the 24th and 25th resulted in some improvement in drought conditions. Following this heavy rainfall, drought levels improved from severe to moderate along and west of a line from Henderson to Madisonville. Places south of a line from Paducah to Madisonville remained in severe drought. Monthly rainfall totals were near normal or above normal in most areas. However, the year-to-date rainfall deficit was still to 10 to 11 inches. Topsoil moisture was replenished, but subsoil moisture remained low. Due to high fire danger, bans on outdoor burning were in effect for numerous counties in western Kentucky at the start of the month. Most burn bans were lifted after heavy rainfall late in the month. Crop harvests were completed in October, but final crop damage figures were not yet available. The cumulative effect of this drought, a catastrophic ice storm in '09, winds from Hurricane Ike in '08, and a record late spring freeze in '07 resulted in a "mortality spiral" among trees and shrubs. According to a local arborist, the series of damaging weather events diminished the long-term ability of trees to recover from future events.

(KY-Z011) LYON

11/12/10 16:00 CST	15K	Wildfire
11/13/10 06:00 CST	0	

A large brush fire consumed 234 acres in the Lyon County portion of the Land Between The Lakes National Recreation Area. The fire was just off the east side of Kentucky Highway 453, known as The Trace. Conditions were ripe for such a fire due to the summer and fall drought. Very low relative humidity on consecutive afternoons dried fine fuels such as leaves and grass. Green vegetation that normally slows the rate of fire spread in the summer was dormant due to killing frosts in October.

(KY-Z001) FULTON, (KY-Z002) HICKMAN, (KY-Z003) CARLISLE, (KY-Z004) BALLARD, (KY-Z005) MCCRACKEN, (KY-Z006) GRAVES, (KY-Z007) LIVINGSTON, (KY-Z008) MARSHALL, (KY-Z009) CALLOWAY, (KY-Z010) CRITTENDEN, (KY-Z011) LYON, (KY-Z012) TRIGG, (KY-Z013) CALDWELL, (KY-Z014) UNION, (KY-Z015) WEBSTER, (KY-Z016) HOPKINS, (KY-Z017) CHRISTIAN, (KY-Z018) HENDERSON, (KY-Z019) DAVIESS, (KY-Z020) MCLEAN, (KY-Z021) MUHLENBERG, (KY-Z022) TODD

11/20/10 02:00 CST	0	Dense Fog
11/20/10 09:00 CST	0	

Clear skies and light winds enabled the residual moisture from recent rainfall to develop into dense fog. Visibility was below one quarter mile on a widespread basis.

(KY-Z004) BALLARD, (KY-Z005) MCCRACKEN, (KY-Z007) LIVINGSTON, (KY-Z009) CALLOWAY, (KY-Z010) CRITTENDEN, (KY-Z014) UNION, (KY-Z015) WEBSTER, (KY-Z016) HOPKINS, (KY-Z018) HENDERSON, (KY-Z019) DAVIESS, (KY-Z020) MCLEAN

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	11/25/10 12:00 CST		11K	Strong Wind (MAX 45 kt)
	11/25/10 16:00 CST		0	

A couple of hours of strong north to northwest winds occurred immediately behind a strong cold front as it swept across western Kentucky. The strongest winds occurred in close association with a line of heavy rain showers marking the wind shift. Peak wind gusts from 45 to 52 mph were quite common in northwest Kentucky, along and north of a line from Paducah to Calhoun (McLean County). These types of wind gusts were more sporadic to the south. At Barkley Regional Airport near Paducah, the peak wind gust was measured at 48 mph. At the Owensboro airport, the peak wind gust was 52 mph. Kentucky mesonet sites recorded peak gusts to 45 mph near Henderson, Marion, and Madisonville, 46 mph near Calhoun, and 50 mph near Murray.

### MISSOURI, Southeast

(MO-Z086) BOLLINGER, (MO-Z087) CAPE GIRARDEAU, (MO-Z100) WAYNE, (MO-Z107) CARTER, (MO-Z108) RIPLEY, (MO-Z109) BUTLER, (MO-Z110) STODDARD, (MO-Z111) SCOTT, (MO-Z112) MISSISSIPPI, (MO-Z114) NEW MADRID				
	11/01/10 00:00 CST		0	Drought
	11/30/10 23:59 CST		0	

Drought conditions worsened across southeast Missouri during the first half of November, then improved with heavy rainfall on the 24th and 25th. At its most widespread extent, extreme drought extended as far north as a Doniphan to Dexter to Charleston line. Moderate to severe drought covered the remainder of southeast Missouri south of Perry County. At the start of the month, 86 percent of pastureland was rated as poor or very poor, and 92 percent of topsoil was short or very short on moisture. Outdoor fire danger became very high at times. A series of wildfires occurred early in the month in Carter and Wayne Counties. Most of the fires were less than 100 acres, and no structures were known to have burned. There were some bans on outdoor burning until heavy rainfall on the 24th and 25th. The cumulative effect of this drought, a catastrophic ice storm in '09, winds from Hurricane Ike in '08, and a record late spring freeze in '07 resulted in a "mortality spiral" among trees and shrubs. According to a local arborist, the series of damaging weather events diminished the long-term ability of trees to recover from future events. Crop harvests were completed in October, but final crop damage figures were not yet available. Unirrigated corn yields were expected to be a total failure in some places.

#### (MO-Z100) WAYNE

11/03/10 14:00 CST	8K	Wildfire
11/08/10 05:00 CST	0	

A large brush fire consumed 276 acres of public land off of Highway D between Greenville and Shook. Conditions were ripe for such a fire due to the summer and fall drought. Green vegetation that normally slows the rate of fire spread in the summer was dormant due to killing frosts in October.

#### (MO-Z107) CARTER

11/08/10 14:00 CST	20K	Wildfire
11/10/10 04:00 CST	0	

A large brush fire consumed 388 acres northwest of Ellsinore, about midway between U.S. Highway 60 and Highway H. Conditions were ripe for such a fire due to the summer and fall drought. Very low relative humidity on consecutive afternoons dried fine fuels such as leaves and grass. Green vegetation that normally slows the rate of fire spread in the summer was dormant due to killing frosts in October.

#### (MO-Z076) PERRY, (MO-Z086) BOLLINGER, (MO-Z087) CAPE GIRARDEAU, (MO-Z100) WAYNE, (MO-Z107) CARTER, (MO-Z108) RIPLEY, (MO-Z109) BUTLER, (MO-Z110) STODDARD, (MO-Z111) SCOTT, (MO-Z112) MISSISSIPPI, (MO-Z114) NEW MADRID

11/17/10 03:00 CST	0	Dense Fog
11/17/10 09:00 CST	0	

Widespread dense fog developed over southeast Missouri in association with clear skies and very moist southwest winds over cold ground. Visibility was less than one quarter mile on a widespread basis.

#### (MO-Z086) BOLLINGER, (MO-Z087) CAPE GIRARDEAU, (MO-Z100) WAYNE, (MO-Z107) CARTER, (MO-Z108) RIPLEY, (MO-Z109) BUTLER, (MO-Z110) STODDARD, (MO-Z111) SCOTT, (MO-Z112) MISSISSIPPI, (MO-Z114) NEW MADRID

11/20/10 00:00 CST	0	Dense Fog
11/20/10 09:00 CST	0	

Clear skies and light winds enabled the residual moisture from recent rainfall to develop into dense fog. Visibility was below one quarter mile on a widespread basis south and southwest of the Perryville area.

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**BUTLER COUNTY --- 4.3 SSW HENDRICKSON [36.84, -90.50]**

11/25/10 06:27 CST	0	Heavy Rain
11/25/10 08:27 CST	0	Source: Trained Spotter

A trained spotter measured 1.31 inches of rain in two hours. The storm total rainfall was 3.01 inches.

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**CAPE GIRARDEAU COUNTY --- 3.0 E DUTCHTOWN [37.25, -89.62], 3.5 WSW FRUITLAND [37.44, -89.71]**

11/25/10 12:00 CST	0	Heavy Rain
11/25/10 14:00 CST	0	Source: Law Enforcement

Water was reported over Highway 74 and on County Road 442. At the Cape Girardeau Regional Airport, 1.48 inches of rain fell in three hours. Storm total rainfall was around 3 inches.

**Several hours of moderate to heavy rain occurred ahead of a strong cold front as it swept across Missouri. Storm total rainfall was generally between 2.5 and 3.5 inches.**